and compared very favourably with aluminium alloys in tensile properties (allowance being made for the much lower specific gravity), but they were not so ductile in compression.

PARIS.

Academy of Sciences, September 19.—M. Georges Lemoine in the chair.—The President announced the death of Alfred Grandidier, member of the section of Geography and Navigation.—J. **Kampé de Fériet**: Some properties of hypergeometrical functions of higher order with two variables.—MM. **Barbillion** and M. **Dugit**: A simple apparatus for obtaining the deviation of the edge of an aeroplane due to the effect of the wind.—M. **d'Azumbuja**: A method for the synchronisation of clock mechanism and of pendulums employed in astronomy. The clockwork mechanism generally used in observatories for controlling the motion of telescopes or mirrors do not possess the accuracy of astronomical clocks, and when used for long photographic exposures frequent rectifications by the observer are necessary. In the apparatus proposed by the author, which has been set up at Meudon, a weight-driven motor is controlled electrically by a pendulum. A diagram of the arrangement is given; it has been in use at Meudon for more than a year, and has proved satisfactory.—A. **Kozlowski**: The origin of the oleoleucites in the liverworts carrying leaves. The examination of living specimens of *Lophocolea heterophylla, L. bidentata, Lepidozia reptans,* and *Mastygobryum trilobatum* leads to the conclusion that Pfeffer's hypothesis on the formation of oleoleucites by the agglomeration of droplets is justified, in spite of the contrary opinions of Wakker, Raciborski, and Garjeanne.—M. **Romieu**: Morphology of the spermatozoid of Chætopterus.—M. **Bridel**: the action of emulsin from almonds on lactose in 85 per cent. ethyl alcohol. The reaction is a complex one: galactose and β-ethylgalactoside were isolated, the former in crystalline form.

SYDNEY.

Royal Society of New South Wales, August 3.—Mr. E. C. Andrews, president, in the chair.—R. H. **Cambage**: Acacia seedlings. A seed of *Acacia melanoxylon* from Jenolan Caves had germinated after having been immersed in sea-water for four years and one month. The rapid germination of *A. Oswaldi*, which grows in the dry interior, is noted. This character may have been developed through the habit of germination after thunderstorms, when the young plant has to establish itself before the succeeding dry weather overtakes it.—G. D. **Osborne**: A preliminary examination of the late Palæozoic folding in the Hunter River District, New South Wales. By the aid of a diagram, giving the elemental features of the diastrophism, it is shown that the earth's segment in the district has undergone a crustal shortening of 7·46 miles, the original width of 77·96 miles now being compressed into 70·50 miles. The depth of the earth block involved has been calculated, and the effects of the strike faulting, in relation to the determination of the vertical bulging resultant upon the thrusting, are discussed.—A. R. **Penfold**: Note on the position of the double linkage in piperitone. On oxidation with neutral potassium permanganate solution diosphenol in monoclinic needles of melting point 82° C. was obtained. This body possesses a well structure of which the double linkage is in the 1 position. Piperitone must therefore be Δ-1-menthone-3.—Dr. L. A. **Cotton**: Earth movements at Burrinjuck, as recorded by horizontal pendulum observations. Horizontal pendulums were installed to measure the movement of the rocks under the load of water impounded by the Burrinjuck Dam, and the relation between the movements of the pendulums and the temperature changes registered by a thermometer placed within the concrete dam, at a distance of 80 ft. from the surface, were investigated. The rock movements are seasonal in character, with a lag of several months, corresponding closely to the temperature lag. The actual movement is from five to ten seconds of arc, which is probably sufficient to cause considerable strain in the rock-masses involved.

Books Received.

The Rift Valleys and Geology of East Africa: An Account of the Origin and History of the Rift Valleys of East Africa and their Relation to the Contemporary Earth-Movements which Transformed the Geography of the World. By Prof. J. W. Gregory. Pp. 479. (London: Seeley, Service and Co., Ltd.) 32*s*. net.

Zoology for Medical Students. By Prof. J. Graham Kerr. Pp. x+485. (London: Macmillan and Co., Ltd.) 25*s*. net.

A Text-book of Qualitative Analysis of Inorganic Substances. By Dr. S. A. Kay. Pp. vii+80. (London: Gurney and Jackson; Edinburgh: Oliver and Boyd.) 7*s*. 6*d*. net.

The International Forestry Bibliography, including Allied Subjects. By Dr. A. H. Unwin. Pp. 48. (Critchmere, Haslemere: Forest Lover's Library.) 2*s*. 6*d*. net.

Wightman's Secondary Schools Mathematical Tables. Edited by F. Sandon. Pp. 96. (London: Wightman and Co., Ltd.) 6*d*.

The Depths of the Soul: Psycho-Analytical Studies. By Dr. William Stekel. Authorised translation by Dr. S. A. Tannenbaum. Pp. v+216. (London: Kegan Paul and Co., Ltd.) 6*s*. 6*d*. net.

An Introduction to Biophysics. By Dr. D. Burns. Pp. xiii+435. (London: J. and A. Churchill.) 21*s*. net.

Handbuch der Gesamten Augenheilkunde. Begründet von A. Graefe und Th. Saemisch. Fortgeführt von C. Hess. Herausgegeben von Th. Axenfeld und A. Elschnig. Dritte, neubearbeitete auflage. Die Brille als Optisches Instrument. Von Prof. Dr. M. von Rohr. Dritte auflage. Pp. xiv+254. (Berlin: J. Springer.) In Germany, 66 marks; in England, 132 marks.

The Chemistry of Colloids and some Technical Applications. By Dr. W. W. Taylor. Second edition. Pp. viii+332. (London: E. Arnold and Co.) 10*s*. 6*d*. net.

An Introduction to Projective Geometry. By Prof. L. N. G. Filon. Third edition. Pp. viii+253. (London: E. Arnold and Co.) 7*s*. 6*d*.

Forensic Chemistry. By A. Lucas. Pp. viii+268. (London: E. Arnold and Co.) 15*s*. net.

Organic Evolution: Outstanding Difficulties and Possible Explanations. By Major Leonard Darwin. Pp. viii+47. (Cambridge: At the University Press). 4*s*. net.

On some Antiquities in the Neighbourhood of Dunecht House, Aberdeenshire. By the Right Rev. Dr. G. F. Browne. Pp. xiv+170+63 plates. (Cambridge: At the University Press.) 63*s*. net.

A First Book of General Science: An Introduction to the Scientific Study of Animal and Plant Life. By A. T. Simmons and A. J. V. Gale. (First Books of Science series.) Pp. viii+145. (London: Macmillan and Co., Ltd.) 2*s*. 6*d*.

The Institution of Mechanical Engineers. Eleventh Report to the Alloys Research Committee. On Some Alloys of Aluminium (Light Alloys). By Dr. W.

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Rosenhain, S. L. Archbutt and Dr. D. Hanson. Pp. ii+256+24 plates. (London: Institution of Mechanical Engineers.) 2*l.* 2*s.*

A Synopsis of the Accipitres (Diurnal Birds of Prey). By H. Kirke Swann. Part I (Vultur to Accipeter). Second edition, revised and corrected throughout. Pp. 63. (London: Wheldon and Wesley, Ltd.) 6*s.*

Fishing from the Earliest Times. By W. Radcliffe. Pp. xviii+478. (London: J. Murray.) 28*s.* net.

The Diagnosing of Troubles in Electrical Machines. By Prof. M. Walker. (Electrical Engineering Series.) Pp. xii+450. (London: Longmans, Green and Co.) 32*s.* net.

Nature Lessons with Plants. By E. Kay Robinson. (Nature Lovers' Library.) Pp. 136. (London: Holden and Hardingham, Ltd.) 1*s.* net.

Nature Lessons with Animals. By E. Kay Robinson. (Nature Lovers' Library.) Pp. 144. (London: Holden and Hardingham, Ltd.) 1*s.* net.

Grasses and Rushes. By Dr. S. C. Johnson. (Nature Lovers' Library.) Pp. 143. (London: Holden and Hardingham, Ltd.) 1*s.* net.

Everybody's Book of Astronomy. By E. G. Fenner. (Nature Lovers' Library.) Pp. 144. (London: Holden and Hardingham, Ltd.) 1*s.* net.

Handbook of Chemistry and Physics: A Ready-Reference Pocket Book of Chemical and Physical Data. By Prof. C. D. Hodgman and others. Eighth edition. Pp. 711. (London: Chapman and Hall, Ltd.) 24*s.* net.

A History of the Cambridge University Press, 1521–1921. By S. G. Roberts. Pp. xv+190. (Cambridge: At the University Press.) 17*s.* 6*d.* net.

Sur l'Origine dell'Uomo: Nuove Teorie e Documenti. By Prof. V. Giuffrida-Ruggeri. Pp. xiii+269. (Bologna: N. Zanichelli.) L. 24.

Diary of Societies.

THURSDAY, October 6.

Ceramic Society (Refractory Materials Section) (at Institution of Mechanical Engineers), at 10.30 a.m.—H. Dewey: Refractory Materials of the London Basin.—J. H. Marlow: The Marlow Gas-fired Tunnel Oven.—P. J. Woolf: A New Type of Tunnel Kiln, Oil-fired, with many Novel Features.—Dr. A. Granger: Aluminothermic Corundum as Refractory Materials.—Prof. J. W. Cobb and H. S. Houldsworth: The Reversible Thermal Expansion of Silica.—Discussion on Gas-firing.

Royal Aeronautical Society (at Royal Society of Arts), at 5.30.—Air Commodore H. R. H. Brooke-Popham: Some Notes on Aeroplanes in Tropical Countries.

Chemical Society, at 8.—S. J. Lewis and F. M. Wood: A New Adjustable Thermostat for all Temperatures between 0° and 100°.—A. F. Dufton: The Separation of Miscible Liquids by Distillation. Laboratory Still-heads.—A. F. Dufton: The Separation of Miscible Liquids by Distillation. A Continuous Laboratory Still.—P. K. Dutt, H. R. Whitehead, and A. Wormall: The Action of Diazo-salts on Aromatic Sulphonamides. Part I.—A. B. Manning: Neutral Salt Action on the Hydrolysis of Ethyl Formate.—A. Shimomura and J. B. Cohen: Synthetic Optical Activity.—T. A. Henry and H. Paget: Chenopodium Oil.—C. K. Ingold and E. A. Perren: Experiments on the Synthesis of the Polyacetic Acids of Methane. An Addendum to Parts I. and III.—C. K. Ingold and W. J. Powell: Experiments on the Synthesis of the Polyacetic Acids of Methane. Part IV. The Preparation of β-Carboxymethanetriacetic Acid.—The Late H. R. Le Sueur and C. C. Wood: The Mechanism of the Action of Fused Alkalis. Part II. Action of Fused Potassium Hydroxide on Phenylglyceric Acid.

Royal Society of Medicine (Obstetrics and Gynæcology Section), at 8.—Dr. Barris and Dr. McCurrich: Case of Hæmatoma of the Vulva following Labour.—Dr. R. A. Hendry: Case of Prolonged Gestation.—Dr. F. A. Nyulasy: Polypoid Decidual Endometritis.

FRIDAY, October 7.

Ceramic Society (Refractory Materials Section) (at Institution of Mechanical Engineers), at 10 a.m.—General Meeting.

Junior Institution of Engineers (at Caxton Hall), at 8.—Dr. F. W. Edridge-Green: Colour Vision and Colour Blindness.

West London Medico-Chirurgical Society (at West London Hospital), at 8.30.—Sir G. Lenthal Cheatle: A Study of Breast Cancer in Relation to the Cancer Problem (Presidential Address).

MONDAY, October 10.

Royal Society of Medicine (War Section), at 5.30.—Sir John Goodwin: The Aftermath of War, with Reference to the Medical Service of the Army (Presidential Address).

Aristotelian Society (at 21 Gower Street), at 8.—Dr. F. C. S Schiller: Novelty (Presidential Address).

TUESDAY, October 11.

Quekett Microscopical Club, at 7.30.—A. Earland: Deep Sea Deposits.

WEDNESDAY, October 12.

Royal Sanitary Institute, at 4.—Discussion on Plumbing and Sanitation on Board Ship.

Newcomen Society (at Institute of Marine Engineers, 85 Minories), at 5.—G. F. Zimmer: History of Continuous Conveying Devices.

Institution of Automobile Engineers (at Royal Society of Arts), at 8.—G. Watson: Industrial Standardisation (Presidential Address).

THURSDAY, October 13.

Child-Study Society (at Royal Sanitary Institute), at 6.—Dr. C. W. Kimmins: Springs of Laughter.

Society for Constructive Birth Control and Racial Progress (In Lecture Room, Hotel Cecil), at 8.—Dr. Marie Stopes: Anecdotes of the Past, Present, and Future of Birth Control (Presidential Address).

Royal Society of Medicine (Neurology Section), at 8.30.—P. Sargent: Presidential Address.

FRIDAY, October 14.

Association of Economic Biologists (In Botanical Lecture Theatre, Imperial College of Science), at 2.30.—Dr. W. Brown and Others: Discussion on the Physiology of the Infection Process.

Royal Society of Medicine (Ophthalmology Section), at 8.30.—J. H. Parsons: The Fourth Cranial Nerve.—E. Clarke: Milestones in Refraction Work.

SATURDAY, October 15.

Physiological Society (at Guy's Hospital).

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